**Location**: natural resources\soils

# **Description**

This layer contains detailed soil classifications corresponding to the published "Soil Survey of Bay County Florida", including bay water. The data features almost 13,000 polygons mapped at 1:24,000 scale. This is also known as county soil survey geographic data or SSURGO.

## Source

In February 1999, this layer was downloaded off the Natural Resources Conservation Service's (Soil Survey Geographic Database (SSURGO)) web page, <a href="http://www.ftw.nrcs.usda.gov/soils\_data.html">http://www.ftw.nrcs.usda.gov/soils\_data.html</a>, as a coverage along with associated tables and metadata. The downloaded metadata is at the end of this document.

The associated tables are in the **soils\_detail** directory or zipfile as separate .dbf files. They have additional attributes that can be linked to the polygons. See table listings below.

Bay County GIS staff joined items from an associated mapunit table, using joinitem in ArcInfo and **musym** as the relate item. Also, Bay County GIS staff added the fields **descsoilun** and **soil\_legnd**. Soil descriptions are in the **soils\_detail** directory or zipfile as .txt files.

This data is provided with the understanding that the conclusions drawn from such information are solely the responsibilities of the user. The GIS data is not a legal representation of the features depicted, and any assumption of the legal status of this data is hereby disclaimed. Errors or omissions should be reported to the Bay County GIS Division 850-784-6171.

# **Attribute Table Structure**

| Item Name  | Width | Output | Type | Decimals |                               |
|------------|-------|--------|------|----------|-------------------------------|
| musym      | 8     | 8      | C    | -        |                               |
| stssaid_c  | 11    | 11     | C    | -        |                               |
| ssaid_c    | 9     | 9      | C    | -        |                               |
| muid_c     | 9     | 9      | C    | -        | (relate item for most tables) |
| muname_c   | 50    | 50     | C    | -        |                               |
| mukind_c   | 10    | 10     | C    | -        |                               |
| mlra_c     | 8     | 8      | C    | -        |                               |
| primfml_c  | 11    | 11     | C    | -        |                               |
| muacres_i  | 8     | 11     | F    | 2        |                               |
| descsoilun | 75    | 75     | C    | -        |                               |
| soil legnd | 60    | 60     | C    | -        |                               |

# **Attributes**

#### musym

Soil map unit symbol, which corresponds to the soil descriptions on page 11 to 39 of the "Soil Survey of Bay County, Florida", ranging from "1" – "53", plus "99" for water and "100" for bay saltwater.

### stssaid c

State and county identification code: "FL005" (FIPS code is 12005)

ssaid\_c

County FIPS code: "005"

## muid\_c

Map unit identification number, combining the 3-digit county FIPS code with a 3-digit map unit symbol: "005001"

Relate item for linking most attribute tables to polygons.

## muname c

Soil map unit name, which corresponds to the soil descriptions on page 11 to 39 of the "Soil Survey of Bay County, Florida".

## mukind\_c

A Association Two or more soils with a repeating pattern.

C Consociation Seventy-five percent (75%) of mapunit within range of taxon.
U Undifferentiated Group Two or more soils that are not continuously coterminous.

X Complex Two or more soils that cannot be mapped seperately due to map scale limitations.

#### mlra c

Major land resource areas

133A Southern Coastal Plain

152A Eastern Gulf Coast Flatwoods

## primfml\_c

## prime farmland

- 0 Not prime farmland.
- 1 All areas are prime farmland.
- 2 Only drained areas are prime farmland.
- 3 Only areas protected from flooding or not frequently flooded during the growing season are prime farmland.
- 4 Only irrigated areas are prime farmland.
- 5 Only drained areas that are either protected from flooding or not frequently flooded during the growing season are prime.
- 6 Only irrigated areas that have been drained are prime farmland.
- 7 Only irrigated areas that are either protected from flooding or not frequently flooded during the growing season are prime.
- When subsoiled (completely remove root inhibiting soil layer) are prime farmland.
- 9 Only irrigated area that the product of I (soil erodibility) and C (climate factor) does not exceed 60 are prime farmland.

#### muacres i

Acreage for each soil map unit for the whole county.

#### descsoilun

Path name to descriptive .txt file on GIS server; added by Bay County GIS for hot-linking use in Arcview

### soil legnd

Soil legend added by Bay County GIS

## ADDITIONAL ATTRIBUTE TABLES

# comp.dbf

# (map unit component) - stores information for soil map unit components

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use either the *musym* or the *muid\_c* field as the relate item.

| STSSAID:C         8         C         -         See page 1.           MUID:C         9         C         -         See page 1.           MUSYM         8         C         -         See page 1.           COMPNAME:C         31         C         -         Soil component name.           SEQNUM:I         8         N         0         ?           SSID:C         8         C         -         ?           COMPPCT:I         9         N         0         ?           SLOPEL:I         7         N         0         slope length? | FIELD      | WIDTH | <b>TYPE</b> | N.DEC         | DESCP  |
|--|------------|-------|-------------|---------------|--|
| MUSYM         8         C         -         See page 1.           COMPNAME:C 31         C         -         Soil component name.           SEQNUM:I         8         N         0         ?           SSID:C         8         C         -         ?           COMPPCT:I         9         N         0         ?           SLOPEL:I         7         N         0         slope length?  | STSSAID:C  | 8     | C           | -             | See page 1.  |
| MUSYM       8       C       -       See page 1.         COMPNAME:C       31       C       -       Soil component name.         SEQNUM:I       8       N       0       ?         SSID:C       8       C       -       ?         COMPPCT:I       9       N       0       ?         SLOPEL:I       7       N       0       slope length?  | MUID:C     | 9     | C           | -             | See page 1.  |
| COMPNAME:C         31         C         -         Soil component name.           SEQNUM:I         8         N         0         ?           SSID:C         8         C         -         ?           COMPPCT:I         9         N         0         ?           SLOPEL:I         7         N         0         slope length?  | MUSYM      | 8     | C           | _             |  |
| SEQNUM:I       8       N       0       ?         S5ID:C       8       C       -       ?         COMPPCT:I       9       N       0       ?         SLOPEL:I       7       N       0       slope length?   | COMPNAME:C | 31    |             | _             |  |
| S5ID:C       8       C       -       ?         COMPPCT:I       9       N       0       ?         SLOPEL:I       7       N       0       slope length?  |            |       | N           | 0             |  |
| COMPPCT:I 9 N 0 ? SLOPEL:I 7 N 0 slope length?   | -          |       |             |               | ?  |
| SLOPEL:I 7 N 0 slope length?   |            |       |             | 0             |  |
| 1 0  |            |       |             |               | slope length?  |
| SLOPEH:1 / N () slope height?  | SLOPEH:I   | 7     | N           | 0             | slope height?  |
| SURFTEX:C 8 C - surface texture?   |            |       |             |               |  |
| OTHERPH:C 11 C - AFFR-annual frost-free rainfallUNDRAINED-undrained  |            |       |             | _             |  |
| COMPKIND:C 10 C - G-Taxon above family M-Miscellaneous area S-Series   |            |       |             | _             |  |
| COMPACRE:I 10 N 0 ?  |            |       |             |               |  |
| CLASCODE:C 23 C - ?  |            |       |             |               |  |
| ANFLOOD:C 8 C - ?  |            |       |             | _             |  |
| ANFLODUR:C 12 C - ?  |            |       |             | _             |  |
| ANFLOBEG:C 9 C - ?   |            |       |             |               |  |
| ANFLOEND:C 9 C - ?   |            |       |             | _             |  |
| GSFLOOD:C 8 C - ?  |            |       |             | _             |  |
| GSFLOODI.C 9 C - ?   |            |       |             | -             |  |
| GSFLOBEG:C 9 C - ?   |            |       |             | -             |  |
|  |            |       |             | -             |  |
|  |            |       |             |               |  |
|  |            |       |             |               |  |
|  |            |       |             |               | •  |
| WTKIND:C 8 C - APPAR Apparent water table Water stands in a freshly dug hole.  PERCH Perched water table Water standing above an unsaturated zone.   | WIKIND:C   | 8     | C           | -             |  |
| WTBEG:C 7 C - ?  | WTBEG:C    | 7     | C           | _             |  |
| WTEND:C 7 C - ?  |            |       |             | _             |  |
| PNDDEPL:F 8 C - ?  |            |       |             | _             |  |
| PNDDEPH:F 9 C - ?  |            |       |             | _             |  |
|  |            |       |             | _             |  |
| duration of inundation per flood is more than 1 month.   |            |       |             |               |  |
| PNDBEG:C 8 C - ?   | PNDBEG:C   | 8     | C           | -             | ?  |
| PNDEND:C 8 C - ?   | PNDEND:C   | 8     | C           | -             | ?  |
| ROCKDEPL:I 9 N 0 ?   | ROCKDEPL:I | 9     | N           | 0             | ?  |
| ROCKDEPH:I 9 N 0 ?   | ROCKDEPH:I | 9     | N           | 0             | ?  |
| ROCKHARD:C 9 C - ?   | ROCKHARD:C | 9     | C           | -             | ?  |
| PANDEPL:I 8 C - ?  | PANDEPL:I  |       | C           | _             | ?  |
| PANDEPH:I 9 C - ?  |            |       |             | _             | ?  |
| PANHARD:C 9 C - ?  |            | 9     |             | _             | ?  |
| SUBINITL:I 8 C - ?   |            | 8     | C           | _             |  |
| SUBINITH:I 8 C - ?   |            |       |             | _             |  |
| SUBTOTL:I 7 C - ?  |            |       |             | _             |  |
| SUBTOTH:I 8 C - ?  |            |       |             | _             |  |
| HYDGRP:C 8 C -   |            |       |             | _             |  |
| A Hydrology Class – A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.  |            |       |             | filtration ra | ates. Soils are deep, well drained to excessively drained sands and gravels. |

- A/D
- Hydrology Class A High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels. Hydrology Class A/D Drained/undrained hydrology class of soils that can be drained and are classified Hydrology Class B Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with В moderately coarse textures.
- B/D
- Hydrology Class B/D Drained/undrained hydrology class of soils that can be drained and are classified Hydrology Class C Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

| D          | Hydrolo         | ogy Class    | – D - Veı  | ry slow infil | tration rates | s. Soils are clayey, have a high water table, or are shallow to an impervious layer.     |
|------------|-----------------|--------------|------------|---------------|---------------|--|
| FROSTACT:C | 8               |              | C          | -             | LOW           |  |
| DRAINAGE:C | 9               |              | C          | -             |               |  |
| E          | Excess than 6 f | ,            | ls have v  | ery high ar   | nd high hyd   | raulic conductivity and low water holding capacity. Depth to water table is more         |
| MW         | Modera          | ately well - | Soils ha   | ve a layer    | of low hydra  | aulic conductivity, wet state high in the profile. Depth to water table is 3 to 6 feet.  |
| Р          | Poorly -        | - Soils ma   | y have a   | saturated     | zone, a laye  | er of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.  |
| SE         | Somew           | hat exces    | sively - S | Soils have h  | nigh hydrau   | lic conductivity and low water holding capacity. Depth to water table is more than 6     |
|            | feet.           |              | -          |               |               |  |
| SP         | Somew           | hat poorly   | / "Soils   | commonly      | have a lay    | er with low hydraulic conductivity, wet state high in profile, etc. Depth to water table |
|            | is 1 to 3       | 3 feet.      |            | -             |               |  |
| VP         | Very po         | orly - Soil  | s are we   | t to the sur  | face most o   | of the time. Depth to water table is less than 1 foot, or is ponded.                     |
| W          | Well - S        | Soils have   | intermed   | diate water   | holding cap   | pacity. Depth to water table is more than 6 feet.  |
| HYDRIC:C   | 7               | C            | _          | N             | No            | Soil does not meet the requirements for a hydric soil.                                   |
|            |                 |              |            | Υ             | Yes           | Soil meets the requirements for a hydric soil.   |
| CORCON:C   | 11              | C            | -          | ?             |               | ·  |
| CORSTEEL:C | 11              | C            | -          | ?             |               |  |
| CLNIRR:C   | 6               | C            | -          | ?             |               |  |
| CLIRR:C    | 5               | C            | -          | ?             |               |  |
| SCLNIRR:C  | 7               | C            | -          | ?             |               |  |
| SCLIRR:C   | 6               | C            | _          | ?             |               |  |
| · -        |                 |              |            |               |               |  |

## compyld.dbf

# (component crop yield) - stores crop yield information for soil map unit components.

Most closely resembles **Table 5**, pg 105 of the *Soil Survey of Bay County, Florida* 

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the  $muid_c$  field as the relate item.

| FIELD      | WIDTH | <b>TYPE</b> | N.DEC | DESCP       |
|------------|-------|-------------|-------|-------------|
| STSSAID:C  | 8     | C           | -     | See page 1. |
| MUID:C     | 9     | C           | -     | See page 1. |
| SEQNUM:I   | 8     | N           | 0     | ?           |
| CROPNAME:C | 27    | C           | -     | Crop name.  |
| NIRRYLD:F  | 7     | N           | 0     | ? yield     |
| IRRYLD:F   | 6     | C           | -     | ? yield     |

WIDTH

FIFI D

# forest.dbf

## (forest understory) - stores information for plant cover as forest understory for soil map unit components

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the *muid\_c* field as the relate item. Before linking this table to soils, you may want to **join** the **plantnm.dbf** table to this table first using **plantsym** as the relate item (plantnm.dbf includes the scientific & common names of the plant codes in the plantsym field).

| TIELD      | 11 I I I I I I |   | N.DEC | DESCI   |
|------------|----------------|---|-------|---|
| STSSAID:C  | 8              | C | -     | See page 1.   |
| MUID:C     | 9              | C | -     | See page 1.   |
| SEQNUM:I   | 8              | N | 0     | ?   |
| PLANTSYM:C | 10             | C | -     | Plant symbol (should be used as relate item with plantnm.dbf) |
| PLANTCOV:I | 8              | N | 0     | percent plant cover?  |
|            |                |   |       |   |

TVPE N DEC DESCP

# hydcomp.dbf

(hydric component information) stores data related to the hydric classification, criteria, landform, etc.

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the  $muid_c$  field as the relate item.

| FIELD     | WIDTH | <b>TYPE</b> | <b>N.DEC</b> | DESCP       |
|-----------|-------|-------------|--------------|-------------|
| STSSAID:C | 8     | C           | -            | See page 1. |
| MUID:C    | 9     | C           | -            | See page 1. |
| SEQNUM:I  | 8     | N           | 0            | ?           |

| CONDITION: | 10 | C | - | W - Soil component is wooded under natural conditions.                         |  |  |  |  |  |
|------------|----|---|---|--|--|--|--|--|--|
|            |    |   |   | X - Soil component is neither farmable nor wooded under natural conditions.    |  |  |  |  |  |
| LANDFMLO:C | 9  | C | - | Landform? BE – Beach; DP – Depression; FP - Flood Plain;                       |  |  |  |  |  |
|            |    |   |   | MT - Marine Terrace; SM - Salt Marsh   |  |  |  |  |  |
| HYDCRIT:C  | 8  | C | - | FSA Hydric Soils Criteria Classification                                       |  |  |  |  |  |
| ONSITE:C   | 7  | C | - | N – No - An on-site determination is not needed to assure this hydric ranking. |  |  |  |  |  |
|            |    |   |   | Y – Yes - An on-site determination is needed to assure this hydric ranking.    |  |  |  |  |  |

## inclusn.dbf

# (map unit inclusion) stores the names of soils included in the soil map units

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the  $muid_c$  field as the relate item.

| FIELD      | WIDTH | TYPE | N.DEC | DESCP       |            |  |
|------------|-------|------|-------|-------------|------------|--|
| STSSAID:C  | 8     | C    | -     | See page    | 1.         |  |
| MUID:C     | 9     | C    | -     | See page    | 1.         |  |
| SEQNUM:I   | 8     | N    | 0     | ?           |            |  |
| INCLSOIL:C | 13    | C    | -     | ?           |            |  |
| INCLPCT:I  | 7     | N    | 0     | ?           |            |  |
| HYDRIC:C   | 7     | C    | -     | N           | No         | Soil does not meet the requirements for a hydric soil.     |
|            |       |      |       | Υ           | Yes        | Soil meets the requirements for a hydric soil.             |
| LANDFMLO:C | 9     | C    | -     | Landforn    | n?         | DP – Depression; FP - Flood Plain;                         |
|            |       |      |       | MT - Marir  | ne Terrac  | e; SM - Salt Marsh   |
| CONDITION: | 10    | C    | -     | W - Soil co | omponen    | t is wooded under natural conditions.                      |
|            |       |      |       | X - Soil co | mponent    | is neither farmable nor wooded under natural conditions.   |
| HYDCRIT:C  | 8     | C    | -     | FSA Hyd     | lric Soil  | s Criteria Classification                                  |
| ONSITE:C   | 7     | C    | -     | N – No - A  | n on-site  | determination is not needed to assure this hydric ranking. |
|            |       |      |       | Y – Yes - A | An on-site | e determination is needed to assure this hydric ranking.   |
|            |       |      |       |             |            |  |

# interp.dbf

# (interpretation) stores soil interpretation ratings (both limitation ratings and suitability ratings) for soil map unit components

**NOTE:** To relate this table to soils use link in ArcView since there is a one to many relationship (using join will result in loss of data). Use the  $muid_c$  field as the relate item.

| FIELD     | WIDTH               | TYPE        | N.DEC                 | DESCI    | •         |           |                      |                   |
|-----------|---------------------|-------------|-----------------------|----------|-----------|-----------|----------------------|-------------------|
| STSSAID:C | 8                   | C           | -                     | See pag  | ge 1.     |           |                      |                   |
| MUID:C    | 9                   | C           | _                     | See pag  | e 1.      |           |                      |                   |
| SEQNUM:I  | 8                   | N           | 0                     | ?        | ,         |           |                      |                   |
| GRPCODE:C | 9                   | C           | _                     |          | 459       | Null val  | lue indicator        |                   |
| 1         | Septic tank absorp  | _           |                       |          | 10        |           | pads and streets     |                   |
| 11        | "Lawns, landscapir  |             | If fairwavs'          |          | 12        | Roadfil   |                      |                   |
| 13        | Sand                | 3, 3 -      |                       |          | 14        | Gravel    |                      |                   |
| 15        | Topsoil             |             |                       |          | 16        | Pond re   | eservoir area        |                   |
| 17        | "Embankments, dil   | kes, and le | evees"                |          | 18        | Aquifer   | -fed excavated ponds |                   |
| 19        | Drainage            |             |                       |          | 2         |           | e lagoons            |                   |
| 20        | Irrigation          |             |                       |          | 21        |           | es and diversions    |                   |
| 22        | Grassed waterway    | S           |                       |          | 23        | Camp a    |                      |                   |
| 24        | Picnic areas        |             |                       |          | 25        | Playgro   |                      |                   |
| 26        | Paths and trails    |             |                       |          | 3         |           | sanitary landfill    |                   |
| 4         | Area sanitary landf |             |                       |          | 5         |           | over for landfill    |                   |
| 6         | Shallow excavation  |             |                       |          | 7         |           | gs without basements |                   |
| 8         | Dwellings with bas  | ements      |                       |          | 9         |           | commercial buildings |                   |
| RATING:C  | 7                   | C           | -                     | 669      | Null valu | e indicat | <del>.</del> .       |                   |
| 1         | Fair                | 10          | Favorabl              | ~        |           | 11        | Limitation           |                   |
| 2         | Good                | 3           | Moderate              | 9        |           | 4         | Poor                 |                   |
| 5         | Severe              | 6           | Slight                |          |           | 7         | Unsuited             |                   |
| 8         | Probable            | 9           | Improbat              |          |           |           |                      |                   |
| RESTCT1:C | 8                   | C           | -                     | See belo | ow.       |           |                      |                   |
| RESTCT2:C | 8                   | C           | -                     | See belo | ow.       |           |                      |                   |
| RESTCT3:C | 8                   | C           | -                     |          |           | "" - null | value indicator      | 1 - area reclaim  |
| 10 - dust | ty                  | 11 - eroc   | des easily            |          |           | 12 - ex   | cess sodium          | 13 - excess humus |
| 14 - exce | ess lime            | 15 - exc    | ess salt <sup>*</sup> |          |           | 16 - fas  | st intake            | 17 - favorable    |

| 18 - flooding      | 19 - frost action  | 2 - cemented pan   | 20 - hard to pack |
|--------------------|--------------------|--------------------|-------------------|
| 21 - large stones  | 22 - low strength  | 23 - no water      | 24 - not needed   |
| 25 - seepage       | 26 - percs slowly  | 27 - piping        | 28 - poor outlets |
| 3 - complex slope  | 30 - rooting depth | 31 - shrink-swell  | 32 - slope        |
| 33 - slow intake   | 34 - slow refill   | 35 - small stones  | 36 - thin layer   |
| 37 - too clayey    | 38 - too sandy     | 39 - unstable fill | 4 - compressible  |
| 40 - wetness       | 41 - excess fines  | 42 - soil blowing  | 43 - permafrost   |
| 44 - pitting       | 45 - salty water   | 46 - subsides      | 47 - too acid     |
| 48 - ponding       | 49 - excess sulfur | 5 - corrosive      | 50 - poor filter  |
| 51 - dense layer   | 52 - fragile       | 53 - slippage      | 54 - variable     |
| 55 - excess gypsum | 56 - too arid      | 6 - cutbanks cave  | 7 - deep to water |
| 8 - depth to rock  | 9 - droughty       |                    |                   |

## layer.dbf

# (soil layer) stores characteristics of soil layers for soil map unit components

Most closely resembles **Table 14**, pg 131 & **Table 15**, pg 135 of the *Soil Survey of Bay County, Florida* 

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the muid c field as the relate item.

| FIELD      | WIDTH      | <b>TYPE</b> | N.DEC       | DESCP             |                 |                       |
|------------|------------|-------------|-------------|-------------------|-----------------|-----------------------|
| STSSAID:C  | 8          | C           | -           | See page 1.       |                 |                       |
| MUID:C     | 9          | C           | -           | See page 1.       |                 |                       |
| SEQNUM:I   | 8          | N           | 0           | ?                 |                 |                       |
| S5ID:C     | 8          | C           | -           | ?                 |                 |                       |
| LAYERNUM:I | 9          | N           | 0           | ?                 |                 |                       |
| LAYERID:I  | 7          | N           | 0           | ?                 |                 |                       |
| LAYDEPL:I  | 8          | N           | 0           | layer depth low?  |                 |                       |
| LAYDEPH:I  | 8          | N           | 0           | layer depth high? | ?               |                       |
| TEXTURE:C  | 14         | C           | -           | USDA texture      |                 |                       |
| C - clay   |            | FSL - fine  | e sandy loa | am                | LS - loamy sand | SC - sandy clay       |
| CL - clay  | loam       | L - loam    |             |                   | MK - mucky      | SCL - sandy clay loam |
| COS - co   | parse sand | LCOS - Id   | coar        | se sand           | MUCK - muck     | SL - sandy loam       |
| FS - fine  | sand       | LFS - loa   | my fine sa  | and               | S - sand        | VAR – variable        |
| KFACT:F    | 6          | N           | 0           | Erosion Factor -  | K?              |                       |
| KFFACT:F   | 6          | N           | 0           | ?                 |                 |                       |
| TFACT:I    | 5          | N           | 0           | Erosion Factor -  | T?              |                       |
| WEG:C      | 6          | C           | -           | Wind Erodibility  | Group           |                       |

- 1 Surface texture VFS,FS,S,COS. Percent aggregates 1, Wind erodibility index 310 t/a/y.
- 2 Surface texture LVFS,LFS,LCOS,Sapric material. Percent aggregates 10, Wind erodibility index 134 t/a/y.
- 3 Surface texture VFSL,FSL,COSL. Percent aggregates 25, Wind erodibility index 86 t/a/y.
  4 Surface Texture C,SIC,noncalcareous CL,SICL(>35% CLAY). Percent aggregates 25, Wind erodibility index 86 t/a/y.
  4 Surface texture calcareous L/SIL/CL,SICL. Percent aggregates 25, Wind Erodibility index 86 t/a/y.
  5 Surface texture noncalcareous L/SIL(<20% CLAY),SCL,SC. Percent aggregates 40, Wind erodibility index 56 t/a/y.</li>

- 6 Surface texture noncalcareous L/SIL(>20% CLAY), CL(<35% CLAY). Percent aggregates 45, Wind erodibility index 48 t/a/y.
- 7 Surface texture SI,noncalcareous SICL(<35% CLÁY). Percent aggregates 50, Wind erodibility index 38 t/a/y.
- 8 Erosion not a problem.

| INCH10L:I | 8 | N | 0 | Fragments greater than 10 inches-low?  |
|-----------|---|---|---|--|
| INCH10H:I | 8 | N | 0 | Fragments greater than 10 inches-high? |
| INCH3L:I  | 7 | N | 0 | Fragments greater than 3 inches-low?   |
| INCH3H:I  | 7 | N | 0 | Fragments greater than 3 inches-high?  |
| NO4L:I    | 5 | N | 0 | %age passing sieve number 4 - low      |
| NO4H:I    | 6 | N | 0 | % age passing sieve number 4 - high    |
| NO10L:I   | 6 | N | 0 | %age passing sieve number 10 - low     |
| NO10H:I   | 7 | N | 0 | %age passing sieve number 10 - high    |
| NO40L:I   | 6 | N | 0 | %age passing sieve number 40 - low     |
| NO40H:I   | 7 | N | 0 | %age passing sieve number 40 - high    |
| NO200L:I  | 7 | N | 0 | %age passing sieve number 200 - low    |
| NO200H:I  | 8 | N | 0 | %age passing sieve number 200 - high   |
| CLAYL:I   | 6 | N | 0 | Clay %age - low                        |
| CLAYH:I   | 6 | N | 0 | Clay %age - high                       |
| LLL:I     | 3 | N | 0 | Liquid limit %age - low                |
| LLH:I     | 4 | N | 0 | Liquid limit %age - high               |
|           |   |   |   |  |

| PIL:I 4 N 0 Plasticity index % ag  | ge - low       |
|--|----------------|
| PIH:I 4 N 0 Plasticity index % ag  | ge - high      |
| UNIFIED:C 20 C - Unified Classification  | on             |
| CL - FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), L   | ean Clay.      |
| ML - FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), \$  | Silt.          |
| PT - Highly organic soils, Peat.   |                |
| SC - COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.<br>SM - COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.                  |                |
| SP - COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sar   | nd             |
| SW - COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand  |                |
| AASHTO:C 17 C - AASHTO Classifica  |                |
| A-1 - Granular materials (35% or less passing No. 200), Stone Fragments  |                |
| A-2 - Granular materials (35% or less passing No. 200), Silty or Clayey Gr   | avel and Sand. |
| A-3 - Granular materials (35% or less passing No. 200), Fine Sand.   |                |
| A-4 - Silt-Clay Materials (more than 35% passing No. 200), Silty Soils.  |                |
| A-6 - Silt-Clay Materials (more than 35% passing No. 200), Clayey Soils.<br>A-7 - Silt-Clay Materials (more than 35% passing No. 200), Clayey Soils. |                |
| AASHIND:F 8 C - ?  |                |
| AWCL:F 5 N 0 available water capa  | city-low?      |
| AWCH:F 6 N 0 available water capa  | •              |
| BDL:F 5 N 0 bulk density – low?  |                |
| BDH:F 5 N 0 bulk density – high?   |                |
| OML:F 5 N 0 Organic matter % ag  |                |
| OMH:F 5 N 0 Organic matter % ag  |                |
| PHL:F 4 N 0 Soil reaction (pH) lo  | )W             |
| PHH:F 5 N 0 Soil reaction (pH) h   | igh            |
| SALINL:I 6 N 0 Salinity-low (mmho  | s/cm)          |
| SALINH:I 7 N 0 Salinity-high (mmho   | os/cm)         |
| SARL:F 5 N 0 ?   |                |
| SARH:F 5 N 0 ?   |                |
| CECL:F 5 N 0 ?   |                |
| CECH:F 6 N 0 ?   |                |
| CACO3L:I 7 N 0 ?   |                |
| CACO3H:I 8 N 0 ?   |                |
| GYPSUML:I 9 N 0 ?  |                |
| GYPSUMH:I 9 N 0 ?  |                |
| PERML:F 6 N 0 Permeability – low (   | in/hr)         |
| PERMH:F 7 N 0 Permeability – high  | (in/hr)        |
| SHRINKSW:C 10 C - Shrink swell potentia  | al             |
| WEI:I 4 N 0 ?  |                |

# plantnm.dbf

# (plant name) stores the common and scientific names for plants used in the database

**NOTE:** It is only necessary to join this table to the following tables: **forest.dbf**, **windbrk.dbf**, and **woodland.dbf**. These 3 tables are the only ones that use the *plantsym* field (which includes the plant codes). Use the *plantsym* field as the relate item when doing a *join* in ArcView.

| FIELD                                   | WIDTH | TYPE | N.DEC | DESCP  |  |  |
|---|-------|------|-------|--|--|--|
| PLANTSYM:C                              | 10    | C    | -     | Plant symbol (should be used as relate item) |  |  |
| SCINAME:C                               | 34    | C    | -     | Scientific name                              |  |  |
| COMNAME:C                               | 23    | C    | -     | Common name                                  |  |  |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |       |      |       |  |  |  |

# taxclass.dbf

# (taxonomic classification) stores the taxonomic classification for soils in the database

**NOTE:** It is only necessary to join this table to **comp.dbf**. **Comp.dbf** is the only table with the *clascode* field (which includes the classification codes). Use the *clascode* field as the relate item when doing a *join* in ArcView.

| FIELD      | WIDTH | <b>TYPE</b> | N.DEC | DESCP   |
|------------|-------|-------------|-------|---|
| CLASCODE:C | 23    | C           | -     | Classification code (should be used as relate item) |
| CLASS:C    | 106   | C           | -     | ?   |

```
ORDER:C
                                     C
                  6
                                                        Order
                                     C - Andisols
                                                                                              E - Entisols
         A - Alfisols
                                                                 D - Aridisols
         H - Histosols
                                                                 M - Mollisols
                                                                                             O - Oxisols
                                     I - Inceptisols
         S - Spodosols
                                     U – Ultisols
                                                                 V - Vertisols
SUBORDER:C 9
                                     C
                                                        Suborder
                                                                                              SHU - humods
         AAQ - aqualfs
                                     EPS - psamments
                                                                 IOC - ochrepts
         AUD – udalfs
                                     HFI - fibrists
                                                                 IUM – umbrepts
                                                                                             SOR - orthods
         EAQ - aquents
                                                                 MAQ - aquolis
                                                                                             UAQ - aquults
                                     HFO - folists
                                     HHE - hemists
                                                                 MRE - rendolls
                                                                                             UUD – udults
         EAR - arents
         EFL - fluvents
                                     HSA -saprists
                                                                 MUD - udolls
                                                                                             VUD - uderts
                                     IAQ - aquepts
                                                                 SAQ - aquods
         EOR - orthents
GRTGROUP:C 9
                                                        Great group
         AAQAL – albaqualfs
                                              AAQEN - endoaqualfs
                                                                                    AAQGL - glossaqualfs
                                              AAQUM – umbraqualfs
                                                                                    AUDGL – glossudalfs
         AAQOC - ochraqualfs
         AUDHA – hapludalfs
                                              AUDPA - paleudalfs
                                                                                    EAQFL - fluvaquents
         EAQHY – hydraquents
                                              EAQPS - psammaquents
                                                                                    EAQSU - sulfaquents
         EARAR - arents
                                              EARUD - udarents
                                                                                    EFLUD - udifluvents
         EORUD – udorthents
                                              EPSQU – quartzipsamments
                                                                                    HFIME – medifibrists
         HFOTR - tropofolists
                                              HHEME - medihemists
                                                                                    HHESI - sulfihemists
         HSAME - medisaprists
                                              HSASI – sulfisaprists
                                                                                    HSATR - troposaprists
                                              IAQHU - humaquepts
         IAQHP - haplaquepts
                                                                                    IOCDY - dystrochrepts
         IOCEU – eutrochrepts
                                              IUMHA – haplumbrepts
                                                                                    MAQAR – argiaquolls
         MAQEN - endoaquolls
                                              MAQHA - haplaquolls
                                                                                    MRERE - rendolls
         MUDHA - hapludolls
                                              SAQA2 - alaquods
                                                                                    SAQEN - endoaquods
         SAQHA - haplaquods
                                               SAQSI - sideraquods
                                                                                    SHUHA - haplohumods
                                              UAQAL – albaquults
         SORA2 – alorthods
                                                                                    UAQEN – endoaquults
         UAQOC - ochraquults
                                               UAQPA - paleaquults
                                                                                    UAQUM - umbraquults
                                                                                    UUDKA – kandiudults
VUDDY – dystruderts
         UUDFR – fragiudults
                                              UUDHA – hapludults
         UUDKH - kanhapludults
                                              UUDPA - paleudults
SUBGROUP:C 10
                                     C
                                                        Subgroup
         AA - typic
                                     AE - aeric
                                                                 AL - albaquic
                                                                                              AL02 - albaquultic
         AL10 - alfic
                                     AL12 - alfic arenic
                                                                 AQ06 - aquic
                                                                                             AQ08 - aquic arenic
         AQ26 - aquic lithic
                                     AR - arenic
                                                                 AR04 - arenic plinthaquic
                                                                                              AR06 - arenic plinthic
         AR10 - arenic ultic
                                     AR14 - arenic umbric
                                                                 AR26 - argic
                                                                                              CH - chromic
                                                                                              FL06 - fluventic
         CU - cumulic
                                     EN - entic
                                                                 FL02 - fluvaquentic
         FL12 - fluventic umbric
                                     FR10 - fragiaquic
                                                                 GL02 - glossaguic
                                                                                              GR - grossarenic
                                     GR04 - grossarenic plinthic
                                                                 HA02 - haplic
                                                                                              HE - hemic
         GR01 - grossarenic entic
         HI - histic
                                     HU10 - humaqueptic
                                                                 LI02 - lithic
                                                                                              MO - mollic
         OX02 - oxyaquic
                                     PL - plinthaquic
                                                                 PL04 - plinthic
                                                                                              PS02 - psammentic
         QU - quartzipsammentic
                                     RE - rendollic
                                                                 RH - rhodic
                                                                                              SP04 - spodic
                                     TH04 - thapto-histic
                                                                 TH06 - thapto-histic tropic
         TE - terric
                                                                                             TR04 - tropic
         UL - ultic
                                     UM02 - umbric
                                                                 VE02 - vertic
PARTSIZE:C
                                     C
                                                        Particle size
         002 - not used
                                                                 050 - loamy-skeletal
         056 - clayey-skeletal
                                                                 062 - sandy
         063 - sandy or sandy-skeletal
                                                                 064 - sandy over loamy
         066 - sandy over clayey
                                                                 068 - loamy
         080 - coarse-loamy
                                                                 088 - coarse-silty
         096 - fine-loamy
                                                                 100 - fine-loamy over sandy or sandy-skeletal
         106 - fine-silty
                                                                 114 - clayey
         118 - clayey over sandy or sandy-skeletal
                                                                 124 - clayey over loamy
                                                                 134 - very-fine
         126 - fine
MINALOGY:C 10
                                                        minalogy?
         01 - unclassified
                                     02 - not used
                                                                 05 - carbonatic
                                                                                              28 - kaolinitic
         34 - mixed
                                     35 - mixed (calcareous)
                                                                 37 - montmorillonitic
                                                                                              46 - siliceous
REACTION:C
                                     C
                                                        reaction?
         02 - not used
                                     04
                                                                 08 - dysic
                                                                                                       10 - euic
                                                                                                                          12 - nonacid
                                        acid
SOILTEMP:C
                                     C
                                                                 Soil temperature
         02 - Not used
                                                                 10 – Isohyperthermic
                                     06 - Hyperthermic
                                                                                                       18 - Thermic
OTHERFAM:C 9
                                                        other family?
         02 - not used
                                     04 - coated
                                                                 12 – ortstein
         14-shallow
                                     16 – sloping
                                                                 20 - uncoated
```

## windbrk.dbf

## (windbreak) stores information on recommended windbreak plants for soil map unit components

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the *muid\_c* field as the relate item. Before linking this table to soils, you may want to **join** the **plantnm.dbf** table to this table first using **plantsym** as the relate item (plantnm.dbf includes the scientific & common names of the plant codes in the plantsym field).

| FIELD      | WIDTH | <b>TYPE</b> | N.DEC | DESCP   |
|------------|-------|-------------|-------|---|
| STSSAID:C  | 8     | C           | -     | See page 1.   |
| MUID:C     | 9     | C           | -     | See page 1.   |
| SEQNUM:I   | 8     | N           | 0     | ?   |
| PLANTSYM:C | 10    | C           | -     | Plant symbol (should be used as relate item with plantnm.dbf) |
| WNDBRKHT:I | 9     | N           | 0     | Wind Break Height (units?)                                    |

wlhabit

## (wildlife habitat) stores wildlife habitat information for soil map unit components

Most closely resembles **Table 9**, pg 116 of the Soil Survey of Bay County, Florida

NOTE: To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the *muid\_c* field as the relate item.

See page 1.

| MUID:C     | 9  | C | - | See page 1.  |
|------------|----|---|---|--|
| SEQNUM:I   | 8  | N | 0 | ?  |
| WLGRAIN:C  | 12 | C | - | Potential for habitat elements: grain and seed crops   |
| WLGRASS:C  | 12 | C | - | Potential for habitat elements: grasses and legumes    |
| WLHERB:C   | 12 | C | - | Potential for habitat elements: wild herbaceous plants |
| WLHARD:C   | 12 | C | - | Potential for habitat elements: hardwood trees         |
| WLCONIF:C  | 12 | C | - | Potential for habitat elements: coniferous plants      |
| WLSHRUB:C  | 12 | C | - | Potential for habitat elements: shrubs                 |
| WLWETPLT:C | 12 | C | - | Potential for habitat elements: wetland plants         |
| WLSHLWAT:  | 12 | C | - | Potential for habitat elements: shallow water areas    |
| WLOPEN:C   | 12 | C | - | Potential as habitat for: openland wildlife            |
| WLWOOD:C   | 12 | C | - | Potential as habitat for: woodland wildlife            |
| WLWET:C    | 12 | C | - | Potential as habitat for: wetland wildlife             |
| WLRANGE:C  | 12 | C | - | Potential as habitat for: range wildlife               |
|            |    |   |   |  |

#### woodland

# (woodland) stores information on common indicator trees for soil map unit components

Most closely resembles Table 7, pg 109 of the Soil Survey of Bay County, Florida

NOTE: To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the *muid\_c* field as the relate item. Before linking this table to soils, you may want to **join** the **plantnm.dbf** table to this table first using plantsym as the relate item (plantnm.dbf includes the scientific & common names of the plant codes in the plantsym field).

| FIELD      | WIDTH                  | TYPE         | N.DEC       | DESCP   |
|------------|------------------------|--------------|-------------|---|
| STSSAID:C  | 8                      | C            | -           | See page 1.   |
| MUID:C     | 9                      | C            | -           | See page 1.   |
| SEQNUM:I   | 8                      | N            | 0           | ?   |
| SUITCODE:C | 9                      | C            | -           | suitability code?                                     |
| E – (Exis  | ting) Plant exists (is | common)      | on the site | •   |
| EP – (Exi  | isting Potential) Plan | t exists (is | commom      | on the site and has potential for planting on the sit |
| P – (Pote  | ential) Plant has note | ntial as a s | species for | planting on the site as a tree crop                   |

TYPE N.DEC DESCP

site as a tree crop.

PLANTSYM:C 10 C Plant symbol (should be used as relate item with plantnm.dbf) SITIND:I N 0 Site index WOODPROD:I 10 N 0 wood products?

### woodmgt

# (woodland management) stores woodland management information for soil map unit components

Most closely resembles **Table 7**, pg 109 of the *Soil Survey of Bay County, Florida* 

**NOTE:** To relate this table to soils use *link* in ArcView since there is a one to many relationship (using join will result in loss of data). Use the *muid\_c* field as the relate item.

**WIDTH** TYPE N.DEC DESCP **FIELD** 

WIDTH

**FIELD** STSSAID:C

| STSSAID:C                                   | 8                   | C          | -   | See page 1.                      |  |  |  |
|---|---------------------|------------|-----|----------------------------------|--|--|--|
| MUID:C                                      | 9                   | C          | -   | See page 1.                      |  |  |  |
| SEQNUM:I                                    | 8                   | N          | 0   | ?                                |  |  |  |
| ORDSYM:C                                    | 8                   | C          | -   | Ordination symbol                |  |  |  |
| A - no l                                    | imitations or sligh | ht limitat | ion | C - clayey soils                 |  |  |  |
| D - rest                                    | ricted rooting dep  | th         |     | F - fragmental or skeletal soils |  |  |  |
| N - snow pack R - relief or slope steepness |                     |            |     |                                  |  |  |  |
| S - sand                                    | ly soils            |            |     | T - toxic substances             |  |  |  |
| W - exc                                     | essive wetness      |            |     | X - stoniness or rockiness       |  |  |  |
| WDEROSN:C                                   | 9                   | C          | -   | Erosion hazard                   |  |  |  |
| WDEQUIP:C                                   | 11                  | C          | -   | Equipment limitation             |  |  |  |
| WDSEED:C                                    | 11                  | C          | -   | Seedling mortality               |  |  |  |
| WDWIND:C                                    | 11                  | C          | -   | Windthrow hazard                 |  |  |  |
| WDPLANT:C                                   | 11                  | C          | -   | ?                                |  |  |  |
|   |                     |            |     |                                  |  |  |  |

# yldunits

# (yield units) stores crop names and the units used to measure yield

**NOTE:** It is only necessary to join this table to **compyld.dbf** to get the crop units. This table is the only one that has the *cropname* field which should be used as the relate item when doing a *join* in ArcView.

| FIELD      | WIDTH | <b>TYPE</b> | N.DEC | DESCP  |
|------------|-------|-------------|-------|--|
| CROPNAME:C | 27    | C           | -     | Crop name  |
| YLDUNITS:C | 12    | C           | -     | Crop yield units (use as relate item with compyld.dbf) |
|            |       |             |       |  |

### ORIGINAL NRCS METADATA

Identification\_Information:

Citation:

Originator: U.S. Department of Agriculture, Natural Resources Conservation Service

Publication\_Date: 1999

Title: Soil Survey Geographic (SSURGO) database for Bay County, Florida

Publication\_Information:

Publication\_Place: Fort Worth, Texas

Place\_Keyword: Beacon Beach Quadrangle

Place\_Keyword: Beacon Hill Quadrangle

Publisher: U.S. Department of Agriculture, Natural Resources Conservation Service

### Description:

**Abstract**: This data set is a digital soil survey and generally is the most detailed level of soil geographic data developed by the National Cooperative Soil Survey. The information was prepared by digitizing maps, by compiling information onto a

planimetric correct base and digitizing, or by revising digitized maps using remotely sensed and other information.

This data set consists of georeferenced digital map data and computerized attribute data. The map data are in a 7.5 minute

quadrangle format and include a detailed, field verified inventory of soils and nonsoil areas that normally occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. A special soil features layer (point and line features) is optional. This layer displays the location of features too small to delineate at the mapping scale, but they are large enough and contrasting enough to significantly influence use and management. The soil map units are linked to attributes in the Map Unit Interpretations Record relational database, which gives the proportionate extent of the component soils and their properties.

**Purpose:** SSURGO depicts information about the kinds and distribution of soils on the landscape. The soil map and data

used in the SSURGO product were prepared by soil scientists as part of the National Cooperative Soil Survey.

(s3008559)

(s2908505)

**Supplemental\_Information:** Digital versions of hydrography, cultural features, and other associated layers that are not part of the SSURGO data set may be available from the primary organization listed in the Point of Contact.

```
Time_Period_of_Content:
   Single_Date/Time:
      Calendar_Date: 1999
   Currentness_Reference: publication date
Status:
   Progress: Complete
   Maintenance_and_Update_Frequency: As needed
Spatial_Domain:
   Bounding Coordinates:
      West_Bounding_Coordinate: -86.000
                                              North_Bounding_Coordinate: 30.625
      East_Bounding_Coordinate: -85.375
                                              South_Bounding_Coordinate: 29.875
Keywords:
   Theme:
      Theme_Keyword Thesaurus: None
      Theme_Keyword: soil survey
      Theme_Keyword: soils
      Theme_Keyword: Soil Survey Geographic
      Theme_Keyword: SSURGO
      Place:
   Place_Keyword_Thesaurus: Counties and County Equivalents of the
         States of the United States and the District of Columbia (FIPS Pub 6-3)
   Place_Keyword: Florida
   Place Keyword Thesaurus: Counties and County Equivalents of the
         States of the United States and the District of Columbia (FIPS Pub 6-3)
   Place_Keyword: Bay County
   Place_Keyword_Thesaurus: USGS Topographic Map Names Data Base
   Place_Keyword: Allanton Quadrangle
                                               (s3008561)
                                                (s3008544)
   Place_Keyword: Bayhead Quadrangle
```

```
Place_Keyword: Bennett Quadrangle
                                              (s3008536)
Place_Keyword: Bruce Quadrangle
                                              (s3008533)
Place_Keyword: Compass Lake Quadrangle
                                             (s3008529)
Place_Keyword: Crooked Island Quadrangle
                                             (s2908504)
Place_Keyword: Crystal Lake Quadrangle
                                             (s3008535)
Place_Keyword: Fountain Quadrangle
                                             (s3008537)
Place_Keyword: Laguna Beach Quadrangle
                                             (s3008549)
Place_Keyword: Long Point Quadrangle
                                             (s3008560)
Place_Keyword: North of Allanton Quadrangle (s3008553)
Place_Keyword: Panama City Quadrangle
                                             (s3008551)
Place_Keyword: Panama City Beach Quadrangle
                                            (s3008550)
Place_Keyword: Red Head Quadrangle
                                             (s3008534)
Place_Keyword: Seminole Hills Quadrangle
                                             (s3008541)
Place_Keyword: Southport Quadrangle
                                             (s3008543)
Place_Keyword: Springfield Quadrangle
                                             (s3008552)
Place_Keyword: West Bay Quadrangle
                                             (s3008542)
Place_Keyword: Youngstown Quadrangle
                                             (s3008545)
```

Access\_Constraints: None

Use\_Constraints: The U.S. Department of Agriculture, Natural Resources Conservation Service, should be acknowledged as the data source in products derived from these data.

This data set is not designed for use as a primary regulatory tool in permitting or citing decisions, but may be used as a reference source. This is public information and may be interpreted by organizations, agencies, units of government, or others based on needs; however, they are responsible for the appropriate application. Federal, State, or local regulatory bodies are not to reassign to the Natural Resources Conservation Service any authority for the decisions that they make. The Natural Resources Conservation Service will not perform any evaluations of these maps for purposes related solely to State or local regulatory programs.

Photographic or digital enlargement of these maps to scales greater than at which they were originally mapped can cause misinterpretation of the data. If enlarged, maps do not show the small areas of contrasting soils

that could have been shown at a larger scale. The depicted soil boundaries, interpretations, and analysis derived from them do not eliminate the need for onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, these data and their interpretations are intended for planning purposes only. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.

# Point\_of\_Contact:

Contact\_Organization\_Primary:

Contact\_Organization: U.S. Department of Agriculture, Natural Resources Conservation Service Contact\_Position: State Soil Scientist

 ${\tt Contact\_Address:}$ 

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# Cross\_Reference:

Citation:

Originator: U.S. Department of Agriculture, Soil Conservation Service

Publication\_Date: 1984

Title: Soil Survey of Bay County, Florida

Geospatial\_Data\_Presentation\_Form: text, table, map

Description:

Abstract: This soil survey contains information that can be applied in managing farms and wetlands; in selecting sites for roads, ponds, buildings, and other structures; and in judging the suitability of tracts of land for farming, industry, and recreation.

Purpose: This soil survey depicts information about the kinds and distribution of soils on the landscape. The soil map and data used in the SSURGO product were prepared by soil scientists as part of the National Cooperative Soil Survey.

#### Data\_Quality\_Information:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report: Attribute accuracy is tested by manual comparison of the source with hard copy plots and/or symbolized display of the map data on an interactive computer graphic system. Selected attributes that cannot be visually verified on plots or on screen are interactively queried and verified on screen. In addition, the attributes are tested against a master set of valid attributes. All attribute data conform to the attribute codes in the signed classification and correlation document and amendment(s).

Logical\_Consistency\_Report: Certain node/geometry and topology GT-polygon/chain relationships are collected or generated to satisfy topological requirements (the GT-polygon corresponds to the soil delineation). Some of these requirements include: chains must begin and end at nodes, chains must connect to each other at nodes, chains do not extend through nodes, left and right GT-polygons are defined for each chain element and are consistent throughout, and the chains representing the limits of the file (neatline) are free of gaps. The tests of logical consistency are performed using vendor software. The neatline is generated by connecting the explicitly entered four corners of the digital file. All data outside the enclosed region are ignored and all data crossing these geographically straight lines are clipped at the neatline. Data within a specified tolerance of the neatline are snapped to the neatline. Neatline straightening aligns the digitized edges of the digital data with the generated neatline (i.e., with the longitude/latitude lines in geographic coordinates). All internal polygons are tested for closure with vendor software and are checked on hard copy plots. All data are checked for common soil lines (i.e., adjacent polygons with the same label). Quadrangles are edge matched within the soil survey area and edge locations generally do not deviate from centerline to centerline by more than 0.01 inch. The quadrangles in this soil survey are edge matched to quadrangles in adjacent soil surveys.

Completeness\_Report: A map unit is a collection of areas defined and named the same in terms of their soil and/or nonsoil areas. Each map unit differs in some respect from all others in a survey area and is uniquely identified. Each individual area is a delineation. Each map unit consists of one or more components.

Soil scientists identify small areas of soils or miscellaneous (nonsoil) areas that have properties and behavior significantly different than the named soils in the surrounding map unit. These minor components may be indicated as special features. If they have a minimal effect on use and management, or could not be precisely located, they may not be indicated on the map.

Specific National Cooperative Soil Survey standards and procedures were used in the classification of soils, design and name of map units, and location of special soil features. These standards are outlined in Agricultural Handbook 18, Soil Survey Manual, 1993, USDA, SCS; Agricultural Handbook 436, Soil Taxonomy, Soil Survey Staff, 1975, USDA, SCS; and all Amendments; Keys to Soil Taxonomy, Soil Survey Staff, (current issue); National Soil Survey Handbook, title 430-VI, 1997.

The actual composition and interpretive purity of the map unit delineations were based on data collected by scientists during the course of preparing the soil maps. Adherence to National Cooperative Soil Survey standards and procedures is based on peer review, quality control, and quality assurance. Quality control is outlined in the memorandum of understanding for the soil survey area and in documents that reside with the Natural Resources Conservation Service state soil scientist. Four kinds of map units are used in soil surveys: consociations, complexes, associations, and undifferentiated groups.

Consociations - Consociations are named for the dominant soil. In a consociation, delineated areas are dominated by a single soil taxon and similar soils. At least one half of the pedons in each delineation are of the same soil component so similar to the named soil that major interpretations are not affected significantly. The total amount of dissimilar inclusions of other components in a map unit generally does not exceed about 15 percent if limiting and 25 percent if nonlimiting. A single component of a dissimilar limiting inclusion generally does not exceed 10 percent if very contrasting.

Complexes and associations - Complexes and associations are named for two or more dissimilar components with the dominant component listed first. They occur in a regularly repeating pattern. The major components of a complex cannot be mapped separately at a scale of about 1:24,000. The major components of an association can be separated at a scale of about 1:24,000. In each delineation of either a complex or an association, each major component is normally present, though their proportions may vary appreciably from one delineation to another. The total amount of inclusions in a map unit that are dissimilar to any of the major components does not exceed 15

percent if limiting and 25 percent if nonlimiting. A single kind of dissimilar limiting inclusion usually does not exceed 10 percent.

Undifferentiated groups - Undifferentiated groups consist of two or more components that do not always occur together in the same delineation, but are included in the same named map unit because use and management are the same or similar for common uses. Every delineation has at least one of the major components and some may have all of them. The same principles regarding proportion of inclusions apply to undifferentiated groups as to consociations.

Minimum documentation consists of three complete soil profile descriptions that are collected for each soil added to the legend, one additional per 3,000 acres mapped; three 10 observation transects for each map unit, one additional 10 point transect per 3,000 acres.

A defined standard or level of confidence in the interpretive purity of the map unit delineations is attained by adjusting the kind and intensity of field investigations. Field investigations and data collection are carried out in sufficient detail to name map units and to identify accurately and consistently areas of about 3 acres.

#### Positional\_Accuracy:

Horizontal\_Positional\_Accuracy:

Calendar\_Date: 1978

Source\_Citation\_Abbreviation: SCS1

Source\_Currentness\_Reference: publication date

Horizontal\_Positional\_Accuracy\_Report: The accuracy of these digital data is based upon their compilation to base maps that meet National Map Accuracy Standards. The difference in positional accuracy between the soil boundaries and special soil features locations in the field and their digitized map locations is unknown. The locational accuracy of soil delineations on the ground varies with the transition between map units.

For example, on long gently sloping landscapes the transition occurs gradually over many feet. Where landscapes change abruptly from steep to level, the transition will be very narrow. Soil delineation boundaries and special soil features generally were digitized within 0.01 inch of their locations on the digitizing source. The digital map elements are edge matched between data sets. The data along each quadrangle edge are matched against the data for the adjacent quadrangle. Edge locations generally do not deviate from centerline to centerline by more than 0.01 inch.

#### Lineage:

```
Source_Information:
   Source_Citation:
      Originator: U.S. Geological Survey
      Publication_Date: 1976-1992
      Title: 7.5 minute topographic quadrangles
      Geospatial_Data_Presentation_Form: map
      Publication_Information:
         Publication_Place: Reston, Virginia
         Publisher: U.S. Geological Survey
      Source_Scale_Denominator: 24000
      Type_of_Source_Media: stable-base material
      Source_Time_Period_of_Content:
         Single_Date/Time:
            Calendar_Date: 1996
      Source Currentness Reference: publication date
      Source_Citation_Abbreviation: USGS1
      Source_Contribution: base materials for compilation of annotated overlays
   Source_Citation:
      Originator: U.S. Department of Agriculature, Soil Conservation Service
      Publication_Date: 1984
      Title: Soil Survey of Bay County, Florida
      Geospatial_Data_Presentation_Form: map
      Publication_Information:
         Publication_Place: Washington, DC
         Publisher: U.S. Government Printing Office
      Source_Scale_Denominator: 20000
      Type_of_Source_Media: paper
      Source_Time_Period_of_Content:
         Single_Date/Time:
```

Source\_Contribution: information for soil map unit delineations, special feature locations, and data on soil properties Source\_Citation: Originator: U.S. Department of Agriculture, Soil Conservation Service Publication\_Date: 1984 Title: ratioed film positives of publication annotation overlays Geospatial\_Data\_Presentation\_Form: remote sensing image Publication\_Information: Publication\_Place: Ft Worth, Texas Publisher: U.S. Department of Agriculture, Soil Conservation Service Source\_Scale\_Denominator: 24000 Type\_of\_Source\_Media: stable-base material Source\_Time\_Period\_of\_Content: Single Dates/Times Calendar\_Date: 1996 Source\_Currentness\_Reference: 1996 Source\_Citation\_Abbreviation: SCS2 Source\_Contribution: source material scaled for compiling to compilation base Source Citation: Originator: U.S. Department of Agriculture, Soil Conservation Service Publication\_Date: unpublished material Title: annotated overlays Geospatial\_Data\_Presentation\_Form: map Source\_Scale\_Denominator: 24000 Type\_of\_Source\_Media: stable-base material Source\_Time\_Period\_of\_Content: Single Dates/Times Calendar\_Date: 1996 Source\_Currentness\_Reference: 1996 Source\_Citation\_Abbreviation: SCS3 Source\_Contribution: source material for scanning Process\_Step: Process\_Description: Bay County, Florida, had a previously published soil survey, 1984, at a scale of 1:20000. An evaluation of the soil survey determined that the soil map unit delineations and map unit components were accurate. Process\_Date: 1996 Source\_Used\_Citation\_Abbreviation: SCS1 Process\_Step: Process\_Description: Ratioed film positives, at a 1:24000 scale, were made from publication overlays. Soil map unit delineations and special soil features were manually compiled to an overlay registered to USGS 7.5 minute topographic quadrangle film positives by a soil scientist. The soil map unit delineation overlays were raster scanned on a modified Tangent scanner at a resolution of 300 dpi by the National Cartography and Geospatial Center in Fort Worth, Texas. Raster editing, neatline development, vector conversion, attributing and edgematching were done in LT4X 4.02. Checkplots of each quadrangle were compared to the scanning source documents for accuracy. The soil line files were exported to DLG-3 format in LT4X 4.10. Special features were manually digitized in Arc/Info 7.1.1. Special feature files were exported to DLG-3 format in Arc/Info 7.1.1. The DLG-3 files were imported into Arc/Info 7.1.1. and reviewed for adherence to SSURGO standards. Adjustments were made to soil lines and labels along the survey boundary to edge match adjacent surveys. Edits were made in Arc/Edit. New DLGs reflecting these edits were written with Arc/Info 7.1.1. Compilation and digitizing of soils were done by NRCS personnel in Florida. DLG-3 export, special feature digitizing, and SSURGO review and edits were done by Missouri digitizing unit personnel. Process\_Date: 1996-1998 Source\_Used\_Citation\_Abbreviations: USGS1, SCS1, SCS2, SCS3 Process\_Step: Process\_Description: The Map Unit Interpretations Record data base was developed by Natural Resources Conservation Service soil scientists according to national standards. Process\_Date: 1998 Source\_Used\_Citation\_Abbreviations: SCS1 Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Vector

Horizontal\_Coordinate\_System\_Definition:

Universal\_Transverse\_Mercator:

Planar:

Spatial\_Reference\_Information:

Grid\_Coordinate\_System\_Name: Universal\_Transverse\_Mercator:

UTM\_Zone\_Number: 16 Transverse\_Mercator: Scale\_Factor\_at\_Central\_Meridian: 0.9996 Longitude\_of\_Central\_Meridian: -87.0 Latitude\_of\_Projection\_Origin: 0.0 False Easting: 500000 False\_Northing: 0.0 Planar\_Coordinate\_Information: Planar\_Coordinate\_Encoding\_Method: coordinate pair Coordinate\_Representation: Abscissa\_Resolution: 0.61 Ordinate\_Resolution: 0.61 Planar\_Distance\_Units: meters Geodetic\_Model: Horizontal\_Datum\_Name: North American Datum of 1927 Ellipsoid\_Name:: Clarke 1866 Semi-major\_Axis: 6378206.4 Denominator\_of\_Flattening\_Ratio: 294.98

#### Entity\_and\_Attribute\_Information:

Overview\_Description:

Entity\_and\_Attribute\_Overview: Map Unit Delineations are closed polygons that may be dominated by a single soil or nonsoil component plus allowable similar or dissimilar soils, or they can be geographic mixtures of groups of soils or soils and nonsoil areas.

The map unit symbol uniquely identifies each closed delineation map unit. Each symbol is linked to a map unit name. The map unit symbol is also the key for linking information in the Map Unit Interpretations Record tables. The map unit symbols are not carried within the modified Digital Line Graph file; however, they are made available in a companion attribute file. The attribute file links the minor codes in the Digital Line Graph files to the map unit symbols.

Map Unit Delineations are described by the Map Unit Interpretations Record database. This attribute database gives the proportionate extent of the component soils and the properties for each soil. The database contains both estimated and measured data on the physical and chemical soil properties and soil interpretations for engineering, water management, recreation, agronomic, woodland, range, and wildlife uses of the soil. The soil Map Unit Interpretations Record database consists of the following relational tables:

codes (database codes) - stores information on all codes used in the database
comp (map unit component) - stores information for soil map unit components

compyld (component crop yield) - stores crop yield information for soil map unit components
forest (forest understory) - stores information for plant cover as forest understory for
soil map unit components

 ${\tt helclass}$  (highly erodible lands class) - stores the highly erodible land classification for wind and water assigned to

the soil map units - Table not populated

hydcomp (hydric component information) - stores data related to the hydric classification, criteria, landform, etc.

inclusn (map unit inclusion) - stores the names of soils included in the soil map units
interp (interpretation) - stores soil interpretation ratings (both limitation ratings and
suitability ratings) for soil map unit components

layer (soil layer) - stores characteristics of soil layers for soil map unit components
mapunit (map unit) - stores information that applies to all components of a soil map unit
mucoacre (map unit county acres) - stores the number of acres for the map unit within a
county

muyld (map unit yield) - stores crop yield information for the soil map unit
plantcom (plant composition) - stores plant symbols and percent of plant composition
associated with components of a soil

map unit - Table not populated

plantnm (plant name) - stores the common and scientific names for plants used in the database
rangenm (range name) - stores the range site names - Table not populated

rsprod (range site production) - stores range site production information for soil map unit
components - Table not

populated

 ${\tt ssacoac}$  (soil survey area county acreage) - stores the acreage for the county within the boundary of the soil survey area

ssarea (soil survey area) - stores information that will apply to an entire soil survey area
taxclass (taxonomic classification) - stores the taxonomic classification for soils in the
database

windbrk (windbreak) - stores information on recommended windbreak plants for soil map unit
components

wlhabit (wildlife habitat) - stores wildlife habitat information for soil map unit components
 woodland (woodland) - stores information on common indicator trees for soil map unit
components

woodmgt (woodland management) - stores woodland management information for soil map unit components

yldunits (yield units) - stores crop names and the units used to measure yield

Special features are described in the feature table. It includes a feature label, feature name, and feature definition for each

special and ad hoc feature in the survey area.

Entity\_and\_Attribute\_Detail\_Citation:

- U.S. Department of Agriculture. 1975. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Soil Conserv. Serv., U.S. Dep. Agric. Handb. 436.
- U.S. Department of Agriculture. 1992. Keys to Soil Taxonomy. Soil Surv. Staff, Soil Conserv. Serv.
- U.S. Department of Agriculture. 1993. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Natural Resources Conservation Service.
- U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handb. 18.
- U.S. Department of Agriculture. 1994. Soil Survey Geographic (SSURGO) Data Base: Data use information. Soil Conserv. Serv.
- U.S. Department of Agriculture. State Soil Survey Database Data Dictionary. Soil Conserv. Serv.

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: Special Soil Features

Entity\_Type\_Definition: Special Soil Features represent soil, nonsoil, or landform features that are too small to be digitized as soil delineations (area features).

Entity\_Type\_Definition Source: U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handb. 18.

Attribute:

Attribute\_Label: Special Soil Features Codes

Attribute\_Definition: Special Soil Features Codes represent specific Special Soil Features. These features are identified

with a major code, a minor code, and a descriptive label. The codes and label are assigned to the point or line assigned to

represent the feature on published maps.

Attribute\_Definition\_Source: U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handb. 18; U.S. Department of Agriculture. 1993. National Soil Survey Handbook, title 430-VI, part 647. Soil Conserv. Serv.

Attribute\_Domain\_Values:

Codeset\_Name: Classification and Correlation of the Soils of Bay County, Florida Codeset\_Source: U.S. Department of Agriculture, Natural Resources Conservation Service

Distribution Information:

Distributor:

Contact\_Organization\_Primary:

Contact\_Organization: U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center

Contact\_Address:

Address\_Type: mailing address

Address: P.O. Box 6567

City: Fort Worth

State\_or\_Province: Texas

Postal\_Code: 76115

Contact\_Voice\_Telephone: 800 672 5559 Contact\_Facsimile\_Telephone: 817 334 5469

Resource\_Description: Bay County, Florida, SSURGO

Distribution\_Liability: Although these data have been processed successfully on a computer system at the U.S. Department of Agriculture, no warranty expressed or implied is made by the Agency regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. The U.S. Department of Agriculture will warrant the delivery of this

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Standard\_Order\_Process: Digital\_Form: Digital\_Transfer\_Information: Format\_Name: DLG Format\_Version\_Date: 19920508 Format\_Specification: Optional Format\_Information\_Content: spatial and keys Transfer\_Size: 18.0 Digital\_Transfer\_Option: Offline\_Option: Offline Media: CD-ROM Recording\_Format: ISO 9660 Level 1 Digital\_Form: Digital\_Transfer\_Information: Format\_Name: ASCII Format\_Information\_Content: keys and attributes Transfer\_Size: 0.3 Digital\_Transfer\_Option: Offline\_Option: Offline\_Media: CD-ROM

Recording\_Format: ISO 9660 Level 1

Fees: The charge is \$50 for a CD-ROM that contains one or more data sets. A data set is one soil survey area in full quadrangle format and includes both spatial and attribute data. Ordering\_Instructions: Call or write to organizations listed under Distributor: Spatial line data and locations of special feature symbols are in DLG-3 optional format. Digital line graph files contain major and minor code pairs in area and line records. A conversion legend is provided for each digital line graph file. Soil map symbols and special feature labels are available in a companion ASCII attribute file. The Map Unit Interpretations Record attribute soil data are available in variable length, tab delimited, ASCII file format.

Turnaround: 10 working days

Metadata Reference Information: Metadata\_Date: 19980909 Metadata\_Review\_Date: 19981228 Metadata\_Contact: Contact\_Organization\_Primary: Contact\_Organization: U.S. Department of Agriculture, Natural Resources Conservation Service Contact\_Position: State Soil Scientist Contact Address: Address\_Type: mailing address Address: 2614 NW 43rd Street City: Gainesville State\_or\_Province: Florida Postal\_Code: 32606 Contact\_Voice\_Telephone: 352 338 9533 Contact\_Facsimile\_Telephone: 352 338 9578 Metadata\_Standard\_Name: Content Standards for Digital Geospatial Metadata

Metadata\_Standard\_Version: 19940608